

Title (en)  
SIGNALING OF ALTERNATIVE MODULATION CODING SCHEMES

Title (de)  
SIGNALISIERUNG VON ALTERNATIVEN MODULATIONS CODIERUNGSSCHEMATA

Title (fr)  
SIGNALISATION DE SCHÉMAS DE CODAGE DE MODULATION ALTERNATIFS

Publication  
**EP 4213423 A1 20230719 (EN)**

Application  
**EP 23160046 A 20190307**

Priority  
• US 201862653497 P 20180405  
• US 201816119904 A 20180831  
• EP 19712655 A 20190307  
• US 2019021085 W 20190307

Abstract (en)  
Wireless devices may employ techniques for indicating alternative modulation coding schemes (MCSs) (e.g., MCS values or MCS indices not associated with a default list or default MCS table). That is, communications (e.g., such as physical downlink control channel (PDCCH) transmissions carrying downlink control information (DCI), physical downlink shared channel (PDSCH) transmissions carrying uplink grants, etc.) may include information (e.g., in MCS fields and reserved fields) that indicate alternative MCSs for subsequent communications. For example, random access radio network temporary identifier (RA-RNTI) scrambled DCI, random access response (RAR) messages, etc., may indicate an alternative MCS for subsequent messages in a random access procedure (e.g., for a RAR, an RRC connection request, etc.). The alternative MCS may be conveyed by indicating information such as MCS scaling factors, alternative MCS table IDs, MCS indices associated with the alternative MCS table, or some combination thereof.

IPC 8 full level  
**H04L 1/00** (2006.01); **H04L 5/00** (2006.01); **H04L 27/34** (2006.01); **H04W 74/08** (2009.01)

CPC (source: CN EP KR US)  
**H04L 1/0003** (2013.01 - CN KR); **H04L 1/0009** (2013.01 - CN KR); **H04L 1/001** (2013.01 - KR); **H04L 1/0016** (2013.01 - EP KR); **H04L 1/0025** (2013.01 - CN EP KR); **H04L 5/0053** (2013.01 - EP KR US); **H04L 27/34** (2013.01 - KR); **H04W 28/18** (2013.01 - CN); **H04W 68/02** (2013.01 - KR US); **H04W 72/21** (2023.01 - KR US); **H04W 74/0833** (2013.01 - CN KR); **H04L 1/0003** (2013.01 - EP); **H04L 1/0004** (2013.01 - US); **H04L 1/0009** (2013.01 - EP); **H04L 1/001** (2013.01 - US); **H04L 27/34** (2013.01 - EP US); **H04W 74/0833** (2013.01 - EP US)

Citation (search report)  
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• [I] WO 2010025613 A1 20100311 - ZTE CORP [CN], et al  
• [A] US 2016226623 A1 20160804 - FRÖBERG OLSSON JONAS [SE], et al  
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Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**US 10291378 B1 20190514**; AU 2019249024 A1 20201008; AU 2019249024 B2 20230629; AU 2023219958 A1 20230914; BR 112020020200 A2 20210105; CN 111937334 A 20201113; CN 111937334 B 20230721; CN 116527200 A 20230801; EP 3776943 A1 20210217; EP 4213423 A1 20230719; JP 2021520111 A 20210812; JP 7295878 B2 20230621; KR 20200138766 A 20201210; TW 201944834 A 20191116; TW 1790359 B 20230121; US 10797846 B2 20201006; US 2019312708 A1 20191010; WO 2019194928 A1 20191010

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**US 201816119904 A 20180831**; AU 2019249024 A 20190307; AU 2023219958 A 20230825; BR 112020020200 A 20190307; CN 201980023971 A 20190307; CN 202310539136 A 20190307; EP 19712655 A 20190307; EP 23160046 A 20190307; JP 2020553468 A 20190307; KR 20207030520 A 20190307; TW 108107581 A 20190307; US 2019021085 W 20190307; US 201916379232 A 20190409